Air Quality Permitting
Statement of Basis

January 28, 2008

Tier I Operating Permit No. T1-060513

Basic American Foods, Rexburg

Facility ID No. 065-00008

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DRAFT FOR PUBLIC COMMENT

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Acronyms, Units, and Chemical Nomenclature

acfm	actual cubic feet per minute
AFS	AIRS Facility Subsystem
AIRS	Aerometric Information Retrieval System
AQCR	Air Quality Control Region
BACT	Best Available Control Technology
Btu	British thermal unit
CAA	Clean Air Act
CFR	Code of Federal Regulations
CO	carbon monoxide
DEQ	Department of Environmental Quality
dscf	dry standard cubic feet
EPA	Environmental Protection Agency
gpm	gallons per minute
gr	grain (1 lb = 7,000 grains)
HAPs	Hazardous Air Pollutants
hp	horsepower
IDAPA	A numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
km	kilometer
lb/hr	pound per hour
m	meter(s)
MACT	Maximum Available Control Technology
MMBtu	Million British thermal units
NESHAP	Nation Emission Standards for Hazardous Air Pollutants
NO_2	nitrogen dioxide
NO_X	nitrogen oxides
NSPS	New Source Performance Standards
O_3	ozone
PM	Particulate Matter
PM_{10}	Particulate Matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
ppm	parts per million
PSD	Prevention of Significant Deterioration
PTC	Permit to Construct
PTE	Potential to Emit
Rules	Rules for the Control of Air Pollution in Idaho
scf	standard cubic feet
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SM	synthetic minor
SO_2	sulfur dioxide
SO_x	sulfur oxides
T/yr	Tons per year
$\mu g/m^3$	micrograms per cubic meter
UTM	Universal Transverse Mercator
VOC	volatile organic compound

1. PURPOSE

The purpose of this memorandum is to explain the legal and factual basis for this Tier I operating permit in accordance with IDAPA 58.01.01.362.

The Department of Environmental Quality (DEQ) has reviewed the information provided by Basic American Foods regarding the operation of its facility located in Rexburg. This information was submitted based on the requirements to submit a Tier I operating permit renewal application in accordance with IDAPA 58.01.01.300.

2. FACILITY DESCRIPTION

The Basic American Foods (BAF) Rexburg plant produces dehydrated food products using a variety of drying and dehydration processes. Products are dried by contact with heated air. Drying air is heated either by direct-firing with natural gas or indirectly using steam heat exchangers. Steam for plant operations is provided by the wood and coal-fired Kipper boiler and natural gas-fired boilers no. 1 and no. 2. The manufacturing process consists of two separate lines (Process A and Process B) that produce various dehydrated food products such as potato granules, formulated food products, and whole and piece food products. Off-spec material is sold as animal feed. Potato starch released during processing is recovered and sold. Starch recovery is a wet process with no associated air emissions. Plant process water is also applied to on-site and off-site farmland. Off-site farms are not part of the BAF Rexburg facility and are not included in this permit.

A portion of the Rexburg facility is leased to Idaho Fresh Cooperative as a fresh potato packing operation.

3. FACILITY/AREA CLASSIFICATION

This facility is a major facility as defined by IDAPA 58.01.01.008.10 because it emits or has the potential to emit a regulated air pollutant(s) in amounts greater than or equal to major facility threshold(s) listed in Subsection 008.10. Refer to Section 6.2 of this document for an emission inventory summary of the air pollutants emitted by this facility.

This facility is not a designated facility as defined by IDAPA 58.01.01.006.30 because the facility employs fossil-fuel boilers with a combined heat input of less than 250 MMBtu per hour. Total boiler heat capacity is approximately 165 MMBtu per hour.

This facility is a major facility as defined by IDAPA 58.01.01.205 (40 CFR 52.21(b)(1)) because it has the potential to emit a regulated criteria air pollutant (carbon monoxide) in amounts greater than or equal to 250 tons per year.

The Standard Industrial Classification (SIC) defining the facility is 2034 which represents establishments primarily engaged in artificially dehydrating fruits and vegetables, including “potato flakes, granules, and other dehydrated potato products.” The Aerometric Information Retrieval System (AIRS) facility classification is A.

The facility is located in Rexburg, which is classified as unclassifiable for all regulated criteria pollutants. There is not a Class I area within 10 kilometers of the facility. This facility is located in Air Quality Control Region (AQCR) 61 and Universal Transverse Mercator (UTM) Zone 12.

A review of the site location information included in the permit application indicates that the facility is located within 50 miles of a state border. Therefore, the states of Montana and Wyoming will be provided an opportunity to comment on the draft Tier I operating permit during the comment period.

4. APPLICATION SCOPE

This project is exclusively a renewal of the facility's existing Tier I permit. The CAM rule is applicable to the Kipper boiler, so a CAM Plan for the multiclone and scrubber were included in the permit application and the permit. The facility has an outstanding Compliance Plan from the initial Tier I operating permit which will be resolved by the issuance of a facility-wide Tier II operating permit. The Tier II permit application has been received by DEQ, but the Tier II permit has not yet been issued so the requirements from that permit will be incorporated in a future Tier I permit modification.

5. SUMMARY OF EVENTS

June 12, 2006	DEQ received application
July 5, 2006	DEQ received errata pages for permit application
July 25, 2006	DEQ determined application complete
August 2006	DEQ decided to issue facility-wide Tier II operating permit first
October 3, 2006	DEQ received CAM Plan for the Kipper boiler
January 2007	BAF requested that the Tier II operating permit include a Facility Emissions Cap (FEC), so the Tier II permit project and Tier I permit renewal were put on hold awaiting FEC application update
November 2, 2007	FEC application update had not been received as of October 2007, so DEQ decided to issue the Tier I renewal first
November 7, 2007	DEQ requested additional information for the CAM plan
December 7, 2007	DEQ received the requested additional CAM plan information
December 14, 2007	DEQ issued draft permit for facility review
January 22, 2008	DEQ received comments on the draft permit from BAF
January 25, 2008	DEQ received an amendment to the CAM plan from BAF

5.1 Permitting History

July 30, 1980	PTC Letter (no number assigned) for the Kipper boiler issued
April 30, 1981	PTC Letter was amended to revise test dates
May 8, 1984	PTC Letter was amended to clarify coal/wood input limits
December 11, 2002	Initial Tier I Operating Permit No. 065-00008 issued

6. PERMIT ANALYSIS

6.1 Basis of Analysis

The following documents were relied upon in preparing this memorandum and the Tier I operating permit:

- PTC Letter (no number assigned), issued July 30, 1980
- PTC Letter amendments, issued April 30, 1981, and May 8, 1984

- Tier I Operating Permit No. 065-00008, issued December 11, 2002
- Tier I Operating Permit application and compliance certification received June 12, 2006
- Errata pages for Tier I Operating Permit application received July 5, 2006
- Compliance assurance monitoring proposal received October 3, 2006, and update received December 7, 2007
- Guidance developed by the U.S. Environmental Protection Agency (EPA) and DEQ

6.2 Emissions Description and Emissions Inventory

The permittee submitted the following facility-wide potential emissions in the application, Table 3-1. The emission estimates include emissions from burning both wood and coal in the Kipper boiler.

Table 6.1 EMISSION INVENTORY – ENTIRE FACILITY POTENTIAL EMISSIONS

CO	NO_x	SO_X	PM_{10}	VOC
307 T/yr	164 T/yr	230 T/yr	149 T/yr	16 T/yr

The permittee determined the above emissions using facility-operating scenarios included in its Tier I operating permit application. The emissions listed above are based on maximum facility utilization and burning a wood waste-coal mixture in the Kipper boiler. As allowed by the PTC Letter (amendment issued May 8, 1984), BAF is able to burn up to 39% coal by weight and 61% wood waste in the Kipper boiler.

Potential hazardous air pollutant emissions by fuel source were determined by BAF and presented in the application, Table 3-3.

Table 6.2 HAP EMISSION INVENTORY

Fuel	Natural Gas	Wood	Coal	Total
Max. firing rate (MMBtu/yr)	1,344,660	394,200	394,200	-
Potential HAP Emissions, (T/yr)	1.24	4.24	2.94	8.41

7. REGULATORY ANALYSIS

7.1 IDAPA 58.01.01.369 – Tier I Operating Permit Renewal

Tier I operating permits being renewed are subject to the same procedural requirements, including those for public participation, affected states review, and EPA review, that apply to initial Tier I operating permit issuance.

7.2 New Source Performance Standards (NSPS) – 40 CFR 60

No New Source Performance Standards apply to any of the emissions units at the Rexburg facility. The Kipper boiler and boilers no. 1 and no. 2 were constructed prior to the Subpart Dc applicability date of June 9, 1989.

7.3 National Emission Standards for Hazardous Air Pollutants (NESHAPS) – 40 CFR Parts 61 & 63

No MACT or NESHAP rules apply because the Rexburg Plant is not a major source of Hazardous Air Pollutant emissions and is not in one of the applicable source categories.

7.4 Compliance Assurance Monitoring (CAM) – 40 CFR Part 64

The Kipper boiler is required to follow a CAM plan because the boiler meets the applicability criteria in 40 CFR 64.2(a) as follows:

(1) The unit is subject to an emission limitation or standard for the applicable regulated air pollutant (or a surrogate thereof), other than an emission limitation or standard that is exempt under paragraph (b)(1) of this section;

The Kipper boiler is subject to the grainloading standard for fuel burning equipment found in IDAPA 58.01.01.675-681. The Kipper boiler was installed after October 1, 1979, so the applicable standards for new sources are applicable when burning wood or a wood/coal mixture. The boiler is not exempt from CAM requirements under any of the exemption criteria in 40 CFR 64.2(b).

(2) The unit uses a control device to achieve compliance with any such emission limitation or standard; and

The Kipper boiler uses a multiclone and wet scrubber to meet the particulate matter standard.

(3) The unit has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source. For purposes of this paragraph, "potential pre-control device emissions" shall have the same meaning as "potential to emit," as defined in §64.1, except that emission reductions achieved by the applicable control device shall not be taken into account.

For particulate matter, 100 tons per year is the emission level for a source to be classified as a major source under 40 CFR Part 70. Pre-control emissions of particulate matter are estimated by BAF to be 220 tons per year.

In accordance with 40 CFR 64.6(c), at a minimum the permit shall specify:
(1) The approved monitoring approach that includes all of the following:
(i) The indicator(s) to be monitored (such as temperature, pressure drop, emissions, or similar parameter);

BAF has proposed monitoring the boiler steaming rate, multiclone pressure drop, scrubber downstream static pressure, scrubber water pressure, and the combination of firebox static pressure and induced draft fan speed.

(ii) The means or device to be used to measure the indicator(s) (such as temperature measurement device, visual observation, or CEMS); and

The following devices are used to monitor the indicators

- Steaming rate: pressure and temperature compensated orifice plate.
- Multiclone pressure drop: Digital pressure gauges located upstream and downstream of the multiclone.
- Scrubber downstream static pressure: Digital pressure gauge located downstream of the scrubber.
- Scrubber water pressure: Manual pressure gauge located on the scrubber water supply header.
- Firebox static pressure: Digital pressure gauge tapped into firebox wall.
- Induced draft fan speed: Recorded from system operating controls.

(iii) The performance requirements established to satisfy §64.3(b) or (d), as applicable.

Not applicable. The criteria in §64.3(d) are not applicable because the section includes special criteria for the use of continuous emission, opacity or predictive monitoring systems, which BAF is not using. There for, BAF must comply with the performance requirements in §64.3(b).

> §64.3(b) *Performance criteria. The owner or operator shall design the monitoring to meet the following performance criteria:*
> *(1) Specifications that provide for obtaining data that are representative of the emissions or parameters being monitored (such as detector location and installation specifications, if applicable).*
>
> Steaming rate: The orifice plate is situated in the steam header. Data acquisition system monitors pressure drop across the orifice plate, steam temperature, and steam pressure, and calculates steam rate from these parameters.
>
> Multiclone pressure drop: Digital pressure gauges are located upstream and downstream of the multiclone. Pressure drop is determined by the difference in reading between the gauges and is displayed on the boiler control system status screen. The sensitivity of the unit is ±0.1 inches of water.
>
> Scrubber downstream static pressure: A digital pressure gauge is located in the scrubber, downstream of the scrubber rods. Pressure is read directly by the gauge and is displayed on the boiler control system status screen. Data are manually recorded every two hours. The sensitivity of the unit is ±0.1 inches of water.
> A drop in the scrubber downstream static pressure to below 5.6" of water column is a possible indicator of a plug-up of the scrubber rod bank.
>
> Scrubber water pressure: Manual (dial) pressure gauge located on the scrubber water supply header. Scrubber water pressure is determined by direct observation of the gauge every two hours. The gauge can be read every to about ±0.5 psig.
>
> Firebox static pressure: A digital pressure gauge is tapped into the side of the firebox. Pressure is read directly by the gauge and is displayed on the boiler control system status screen. Data are manually recorded every two hours. The sensitivity of the unit is ±0.01 inches of water.
>
> Induced draft fan speed: The fan speed is set and monitored by the boiler control system. The fan speed is displayed to the nearest per cent on the boiler control system status screen. Data are manually recorded every two hours. A scrubber plug-up is indicated if the induced draft fan goes to 100% speed and is unable to maintain a negative pressure in the firebox.
>
> *(2) For new or modified monitoring equipment, verification procedures to confirm the operational status of the monitoring prior to the date by which the owner or operator must conduct monitoring under this part as specified in §64.7(a). The owner or operator shall consider the monitoring equipment manufacturer's requirements or recommendations for installation, calibration, and start-up operation.*
>
> Not applicable. This paragraph is not applicable to BAF because all monitoring equipment was installed and operating during the performance test upon which the compliance plan is based.
>
> *(3) Quality assurance and control practices that are adequate to ensure the continuing validity of the data. The owner or operator shall consider manufacturer recommendations or*

requirements applicable to the monitoring in developing appropriate quality assurance and control practices.

Steaming rate: The steam recorder was calibrated when installed. There is no manufacturer recommended calibration schedule. BAF will inspect the orifice plate every other year to verify physical condition of the orifice plate and overall health of the transmitter system. The overall performance of the transmitters will be checked every other year. The performance evaluation will include verifying overall transmitter health and conducting span checks of the entire loop.

Multiclone pressure drop: According to BAF, digital pressure gauges have very little tendency to drift, and calibration is not needed. The overall performance of the transmitters will be checked every other year. The performance evaluation will include verifying overall transmitter health and conducting span checks of the entire loop.

Scrubber downstream static pressure: Digital pressure gauges have very little tendency to drift, and calibration is not needed. The overall performance of the transmitter will be checked every other year. The performance evaluation will include verifying overall transmitter health and conducting span checks of the entire loop.

Scrubber water pressure: The pressure gauge reading will be compared with a second manual pressure gauge monthly. If the readings differ by more than 1 psig troubleshooting will be initiated.

Firebox static pressure: Digital pressure gauges have very little tendency to drift, and calibration is not needed. The overall performance of the transmitter will be checked every other year. The performance evaluation will include verifying overall transmitter health and conducting span checks of the entire loop.

Induced draft fan speed: The sensor for fan speed setting unit is not subject to drift and does not require calibration.

(4) Specifications for the frequency of conducting the monitoring, the data collection procedures that will be used (e.g., computerized data acquisition and handling, alarm sensor, or manual log entries based on gauge readings), and, if applicable, the period over which discrete data points will be averaged for the purpose of determining whether an excursion or exceedance has occurred.
(i) At a minimum, the owner or operator shall design the period over which data are obtained and, if applicable, averaged consistent with the characteristics and typical variability of the pollutant-specific emissions unit (including the control device and associated capture system). Such intervals shall be commensurate with the time period over which a change in control device performance that would require actions by owner or operator to return operations within normal ranges or designated conditions is likely to be observed.
(ii) For all pollutant-specific emissions units with the potential to emit, calculated including the effect of control devices, the applicable regulated air pollutant in an amount equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source, for each parameter monitored, the owner or operator shall collect four or more data values equally spaced over each hour and average the values, as applicable, over the applicable averaging period as determined in accordance with paragraph (b)(4)(i) of this section. The permitting authority may approve a reduced data collection frequency, if appropriate, based on information presented by the owner or operator concerning the data collection mechanisms available for a particular parameter for the particular pollutant-specific emissions unit (e.g., integrated raw material or fuel analysis data, noninstrumental

measurement of waste feed rate or visible emissions, use of a portable analyzer or an alarm sensor).

The potential to emit particulate matter, calculated including the effect of the multiclone and wet scrubber, is less than 100 T/yr. Therefore the parametric monitoring does not need to be conducted four or more times per hour.

(iii) For other pollutant-specific emissions units, the frequency of data collection may be less than the frequency specified in paragraph (b)(4)(ii) of this section but the monitoring shall include some data collection at least once per 24-hour period (e.g., a daily inspection of a carbon adsorber operation in conjunction with a weekly or monthly check of emissions with a portable analyzer).

Steaming rate: Steam production is totalized continuously, and the steam production is recorded hourly. The hourly steam values are summed to provide a 24-hour total. The daily average steam rate is obtained by dividing the 24-hour total by 24.

Multiclone pressure drop: Data are manually recorded every two hours in the boiler operating log.

Scrubber downstream static pressure: Data are manually recorded every two hours in the boiler operating log.

Scrubber water pressure: Data are manually recorded every two hours in the boiler operating log.

Firebox static pressure: Data are manually recorded every two hours in the boiler operating log.

Induced draft fan speed: Data are manually recorded every two hours in the boiler operating log.

(2) *The means by which the owner or operator will define an exceedance or excursion for purposes of responding to and reporting exceedances or excursions under §§64.7 and 64.8 of this part. The permit shall specify the level at which an excursion or exceedance will be deemed to occur, including the appropriate averaging period associated with such exceedance or excursion. For defining an excursion from an indicator range or designated condition, the permit may either include the specific value(s) or condition(s) at which an excursion shall occur, or the specific procedures that will be used to establish that value or condition. If the latter, the permit shall specify appropriate notice procedures for the owner or operator to notify the permitting authority upon any establishment or reestablishment of the value.*

BAF proposed operating ranges upon which an excursion will be deemed to occur for each of the indicators monitored. The ranges are provided in Table 7.1 below.

(3) The obligation to conduct the monitoring and fulfill the other obligations specified in §§64.7 through 64.9 of this part.

The required obligations from §64.7 through 64.9 were included in the permit.

(4) If appropriate, a minimum data availability requirement for valid data collection for each averaging period, and, if appropriate, a minimum data availability requirement for the averaging periods in a reporting period.

Not applicable. Minimum data availability requirements are not needed for BAF's CAM plan because continuous monitoring is not being conducted and the data is not averaged.

Table 7.1 MONITORING REQUIREMENTS FOR THE KIPPER BOILER

	Indicator No.1	**Indicator No.2**	**Indicator No.3**	**Indicator No.4**	**Indicator No. 5**
I. Indicator	**Boiler Steaming Rate**	**Multiclone pressure drop**	**Scrubber downstream static pressure**	**Scrubber water pressure**	**Combination of firebox static pressure and induced draft fan speed setting**
Measurement Approach	The boiler steaming rate is measured using a pressure and temperature compensated orifice plate that is located in the steam header. Data acquisition system monitors pressure drop across the plate, steam temperature, and steam pressure and calculates steam rate from these parameters.	The multiclone pressure drop is measured by digital pressure gauges located upstream and downstream of the multiclones. Pressure drop is determined by the difference in reading between the gauges and is displayed in the boiler control room.	The scrubber downstream static pressure is measured using a digital pressure gauge in the scrubber throat downstream of the scrubber rods.	The scrubber water pressure is measured using a manual pressure gauge located in the scrubber water supply header. Scrubber water pressure is determined by direct observation of the gauge.	The firebox static pressure is measured using a digital pressure gauge tapped into the firebox. The induced draft fan speed setting is measured directly from the speed control setting for the fan.
II. Indicator Range	An excursion is defined as a boiler steaming rate less than 35,000 lbs/hr or greater than 65,000 lbs/hr.	An excursion is defined as a multiclone pressure drop less than 1.0 inches of water or greater than 5.0 inches of water.	An excursion is defined as a scrubber downstream static pressure that is less than 5.6 inches of water column.	An excursion is defined as a scrubber water pressure less than 4.0 psig or greater than 10 psig.	An excursion is defined as any time the induced draft fan goes to 100% speed and is unable to maintain a negative pressure in the firebox.
III. Performance Criteria					
A. Data Representativeness	The boiler steaming rate sensor is located in the steam header.	The multiclone pressure drop monitors are located upstream and downstream of the multiclones. The sensitivity is ± 0.1 in. H_2O.	The scrubber downstream static pressure monitor is located downstream of the scrubber rods. The sensitivity is ± 0.1 in. H_2O.	The scrubber water pressure monitor is located in the water supply header. The gauge can be read to ±0.5 psig.	The firebox static pressure monitor is tapped into the firebox. The sensitivity is 0.01 inches of water column. The fan speed is recorded directly from the boiler control system and is recorded to the nearest 0.1 %.
B. Verification of Operational Status	n/a	n/a	n/a	n/a	n/a
C. *QA/QC* Practices and Criteria	The steam recorder was calibrated when installed. The orifice plate will be inspected every other year for physical condition and BAF will check the overall health of the transmitter system by conducting span checks.	Digital pressure drop monitors have very little tendency to drift and calibration is not needed.[2] The performance of the transmitters will be checked every other year and will include conducting span checks of the entire loop.	Digital pressure drop monitors have very little tendency to drift and calibration is not needed.[2] The performance of the transmitter will be checked every other year and will include conducting span checks of the entire loop.	The pressure gauge reading will be compared with a second manual pressure gauge monthly. If readings differ by more than 1 psig, troubleshooting will be initiated.	Digital pressure drop monitors have very little tendency to drift and calibration is not needed. The performance of the transmitters will be checked every other year and will include conducting span checks of the entire loop. The induced draft fan speed setting does not require a calibration.
D. Monitoring Frequency	The boiler steam production is totalized continuously and recorded hourly.	Recorded every 2 hours.	Recorded every 2 hours.	Recorded every 2 hours.	Recorded every two hours.

	Indicator No.1	Indicator No.2	Indicator No.3	Indicator No.4	Indicator No. 5
I. Indicator	**Boiler Steaming Rate**	**Multiclone pressure drop**	**Scrubber downstream static pressure**	**Scrubber water pressure**	**Combination of firebox static pressure and induced draft fan speed setting**
Data Collection Procedures	Data acquisition system records hourly total.	Manually recorded in the boiler operating log.	Manually recorded in the boiler operating log.	Manually recorded in the boiler operating log.	Manually recorded in the boiler log.
Averaging period[1]	1-hour average steaming rate.	Not to be exceeded at any time	Not to be exceeded at any time	Not to be exceeded at any time	Not to be exceeded any time.

[1] The operating parameters are not to be deviated from at any time under normal operation. Periods of startup and shutdown are excluded.
[2] The statement regarding stability of digital pressure monitors was provided by BAF in December 7, 2007, Compliance Assurance Monitoring Design letter.

8. PERMIT CONDITIONS

This section describes only the changes made to the permit as a result of this permitting action.

Facility-wide Conditions

8.1 Emission Unit Description

Some of the facility-wide conditions were re-ordered to match DEQ's updated Tier I permit template. The fuel-burning equipment particulate matter standard was removed from the facility-wide conditions because it is addressed in the specific sections of the permit for the Kipper boiler, and boilers no. 1 and no. 2.

The rule regarding sulfur content of fuels was also removed from the facility-wide conditions because the sulfur limit for coal is included in the Kipper boiler section of the permit. The facility does not use distillate or residual fuel oil.

Permit Condition 2.16, the fuel-burning equipment particulate matter standard, was removed from the facility-wide conditions because it is addressed in the specific sections of the permit for the Kipper boiler, and boilers no. 1 and no. 2. Also, it is recognized that direct-fired units, such as the space heaters, are not subject to this standard.

Permit Condition 2.20, regarding incinerators, was removed from the permit. The condition stated that the "permittee shall comply with the requirements of IDAPA 58.01.01.785-788, *Rules for Control of Incinerators.***"** The renewal application says the incinerator at the facility was used to destroy documents but has been rendered inoperable.

Permit Condition 2.15, that identified specific test methods, was also removed from the facility-wide conditions because it is no longer part of DEQ's standard facility-wide conditions.

Kipper Boiler

8.2 Emission Unit Description

The Kipper boiler is a wood and coal-fired boiler with a maximum steam production rate of 60,000 pounds per hour. The Kipper boiler was installed in 1981 and an economizer was added in 2001. A permit to construct for the Kipper boiler was issued to what was then the American Potato Company on July 30, 1980. See the permit to construct in Appendix B.

8.3 Deleted Existing Permit Conditions 3.2 and 3.5

Existing Permit Condition 3.2 limited the annual hours of operation of the boiler to 8, 568 hours per year and referenced PTC No. 065-00008, 7/30/80, as the applicable requirement. The permit condition was removed from the Tier I permit because it did not exist in the July 30, 1980 PTC and it was not found to exist in any other permit.

Permit Condition 3.5 was also removed from the permit because it was the monitoring requirement to demonstrate compliance with the annual hours of operation limit. The permit condition stated:

The permittee shall monitor and record the hours of operation of the Kipper boiler monthly and annually. These records shall be maintained onsite for the most recent five-year period and shall be made available to Department representatives upon request.

8.4 Deleted Existing Permit Conditions 3.3 and 3.7

Existing Permit Condition 3.3 stated:
The permittee shall comply with the visible emissions requirements of Permit Condition 2.7. Compliance with this condition shall demonstrate compliance with Permit Condition 3.1 until such time as a monitoring plan is approved in accordance with 40 CFR Part 64.

Existing Permit Condition 3.7 stated:
As part of the next application for renewal of this Tier I permit, the permittee shall submit monitoring data for the emissions control devices identified in Table 3.1. This monitoring shall satisfy the design requirements of 40 CFR 64.3. Performance testing conducted for this monitoring shall be conducted in accordance with the requirements of IDAPA 58.01.01.157.

Permit Conditions 3.3 and 3.7 were removed from the permit because BAF submitted a CAM plan and associated test data in accordance with 40 CFR Part 64 for the Kipper boiler and the CAM plan is included in this Tier I permit renewal. Therefore, Permit Conditions 3.3 and 3.7 were obsolete.

8.5 Expanded Permit Condition 3.1 and added Permit Condition 3.4

Permit Condition 3.1 contains the fuel burning equipment particulate matter standards from IDAPA 58.01.01.675. The original Tier I permit contained only the particulate matter limit for wood fuel. This Tier I permit was revised to include the particulate matter standard for coal fuel as well because the original PTC allowed the boiler to burn up to 39% coal. The 39% coal limit, based on weight input, was included as Permit Condition 3.4. Language was also added to Permit Condition 3.1.2 to clarify that the heat content of wood is determined on a "bone-dry solids" basis.

8.6 Added CAM Requirements (40 CFR Part 64)

The compliance assurance monitoring (CAM) plan requirements for the boiler were added to the permit. See section 7.4 above for discussion of CAM plan requirements.

Boilers 1 and 2

8.7 Emission Unit Description

Boilers no. 1 and no. 2 were manufactured by Erie City, are natural gas-fired, and have rated heat input capacities of 52 MMBtu/hr and 35 MMBtu/hr, respectively. Boilers no. 1 and no. 2 were installed prior to 1965.

8.8 Revised Permit Condition 4.1

Permit Condition 4.1, which contains the particulate matter emission limit for fuel burning equipment, was revised to make it clear that the emission rate needs to be corrected to 3% oxygen. It was also corrected to remove the statement that the limit applies to fuel burning equipment "in operation on or after October 1, 1979" because the boilers were installed in the 1960's. The requirement to conduct annual boiler tuning was separated from Permit Condition 4.1 and moved to be a separate operating requirement at Permit Condition 4.4.

Process A

8.9 Emission Unit Description

Process A produces dehydrated potato products. Raw material into the process is cooked potatoes and additives, including sulfites. Products are produced via a series of cooling, drying and materials separation processes. Process A can operate up to 8,760 hours per year. Drying heat is provided by both natural gas combustion and steam from the plant boilers. Process A was constructed in the early 1960s.

No changes were made to the permit conditions for Process A. Additional description of the process was included in Table 5.1 to give the permit reader a better understanding of the emission units.

Process B

8.10 Emission Unit Description

Process B produces dehydrated food products. It also includes materials transport and packaging processes. Raw material inputs include cooked foods, previously dehydrated foods, and food additives, including sulfites. Products are produced via a series of cooling, drying, and materials separation processes. Drying heat is provided by both natural gas combustion and steam produced by the plant boilers.

No changes were made to the permit conditions for Process B. Additional description of the process was included in Table 6.1 to give the permit reader a better understanding of the emission units. Emission unit IDs #234, 311/312, and 725 were removed from Table 6.1 because they are included in the insignificant activities list.

Space Heaters

8.11 Emission Unit Description

This section of the permit was added. There are currently 18 individual space heaters at the Rexburg facility in sizes ranging from less than 0.1 MMBtu/hr to 8.8 MMBtu/hr with a total combustion capacity of approximately 31 MMBtu/hr. Most of the space heaters are insignificant based on size. In accordance with IDAPA 58.01.01.317.01.b.i.(18), space heaters using natural gas, propane, or kerosene and generating less than 5 MMBtu/hr are insignificant activities. Currently there are two space heaters (shop roof heater and proctor roof heater) that exceed the insignificant activity criteria and are regulated by Section 7 of the permit. Both of these space heaters are direct-fired heating units.

8.12 Permit Conditions

The visible emissions standard, IDAPA 58.01.01.625, applies to emissions from the space heaters. Monitoring and recordkeeping requirements to demonstrate compliance with this standard are specified by facility-wide condition 2.8.

9. INSIGNIFICANT ACTIVITIES

The insignificant activities identified by BAF in the application are included in the permit along with the applicable regulatory citation for those activities that were determined insignificant based on size or production rate in accordance with IDAPA 58.01.01.317.01(b)). The insignificant activities list was updated to reflect the list provided in the renewal application.

10. ALTERNATIVE OPERATING SCENARIOS

The facility did not request any alternative operating scenarios.

11. TRADING SCENARIOS

The facility did not request any trading scenarios.

12. COMPLIANCE SCHEDULE

12.1 Compliance Plan

The compliance plan included in the original Tier I operating permit, issued December 11, 2002, was updated to note that the permit application required by the compliance plan has been received, and the application was determined complete. DEQ has not yet issued a permit to address the issues identified in the compliance plan and associated permit application.

Compliance Plan Tier II/PTC application history:

May 28, 2003	Tier II/PTC application received
August 8, 2003	Application determined complete
January 5, 2004	DEQ received a revised Air Quality Modeling Protocol
March 2, 2004	DEQ received air dispersion modeling scenarios for NAAQS compliance demonstration
September 10, 2004	Facility-draft Tier II operating permit issued
December 10, 2004	Comments on draft permit received from BAF (project put on hold due to backlog of permits)
August 29, 2005	DEQ sent letter to BAF stating work on the permit had recommenced
October 10, 2005	DEQ received additional submittal from BAF on the air quality impacts of the Rexburg plant
December 2006	BAF notified DEQ that they were interested in facility emission cap limits and that they planned to submit a Tier II permit addendum for the facility emissions cap
May 24, 2007	BAF submitted a letter requesting facility emission caps. The letter said BAF would prepare needed FEC information regarding emission caps and compliance demonstration in coming weeks
January 23, 2008	DEQ and BAF decided to issue the Tier II operating permit to address the outstanding compliance plan issues without incorporating a facility emissions cap because BAF had not yet submitted an addendum to the Tier II permit application to include FEC limits

12.2 Compliance Certification

Basic American Foods-Rexburg is required to periodically certify compliance in accordance with General Provision 21. The facility shall submit an annual compliance certification for each emissions unit to DEQ and EPA, in accordance with IDAPA 58.01.01.322.11. The compliance certification report shall address the compliance status of each emissions unit with the terms and conditions of this permit.

13. PERMIT REVIEW

13.1 Regional Review of Draft Permit

DEQ provided the draft permit to its Idaho Falls Regional Office on December 12, 2007. The regional office did not have any comments regarding the draft permit.

13.2 Facility Review of Draft Permit

DEQ provided the draft permit to Basic American Foods for its review on December 14, 2007. The facility provided written comments on the draft permit on January 22, 2008.

13.3 Public Comment

DEQ will provide the draft permit for public comment. The States of Montana and Wyoming are within 50 miles of this Tier I Source and are affected states. As such, notification of the public comment period will be provided as required by IDAPA 58.01.01.364. Following the public comment period, the EPA will also be provided with a copy of the proposed renewal Tier I permit for a 45-day review period per IDAPA 58.01.01.366.

14. ACID RAIN PERMIT

This facility is not an affected facility as defined in 40 CFR 72 through 75; therefore, acid rain permit requirements do not apply. The facility is not an affected unit according to the definitions and applicability under 72.2 and 72.6. The BAF Rexburg facility is a non-utility unit (72.6(b)(8)). "Unit" is defined as a fossil fuel-burning device and "utility" is defined as any facility that sells electricity.

15. REGISTRATION FEES

This facility is a major facility as defined by IDAPA 58.01.01.008.10; therefore, registration and registration fees in accordance with IDAPA 58.01.01.387 apply. The facility is in compliance with registration and registration fee requirements.

16. RECOMMENDATION

Based on the Tier I operating permit application and review of state rules and federal regulation, staff recommends that DEQ issue draft Tier I Operating Permit No. T1-060513 to Basic American Foods for its Rexburg food dehydration facility. This permit renews the facility's existing Tier I operating permit. The permit will be made available for public comment as required by IDAPA 58.01.01.364. The project does not involve PSD permitting requirements.

ZK Permit No. T1-060513

Appendix A

Basic American Foods
Rexburg

Tier I Operating Permit No. T1-060513

Facility ID No. 065-00008

AIRS Data Entry Form

AIRS/AFS[a] FACILITY-WIDE CLASSIFICATION[b] DATA ENTRY FORM

Facility Name: Basic American Foods
Facility Location: Rexburg
AIRS Number: 065-00008

AIR PROGRAM POLLUTANT	SIP	PSD	NSPS (Part 60)	NESHAP (Part 61)	MACT (Part 63)	SM80	TITLE V	AREA CLASSIFICATION A-Attainment U-Unclassified N- Nonattainment
SO_2	A	B					A	U
NO_x	A	B					A	U
CO	A	A					A	U
PM_{10}	A	B					A	U
PT (Particulate)	A	B					A	U
VOC	B	B					B	U
THAP (Total HAPs)	B	ND					B	U
			APPLICABLE SUBPART					

[a] **Aerometric Information Retrieval System (AIRS) Facility Subsystem (AFS)**

[b] **AIRS/AFS Classification Codes:**

- **A = Actual or potential emissions of a pollutant are above the applicable major source threshold. For HAPs only, class "A" is applied to each pollutant which is at or above the 10 T/yr threshold, or each pollutant that is below the 10 T/yr threshold, but contributes to a plant total in excess of 25 T/yr of all HAPs.**
- **SM = Potential emissions fall below applicable major source thresholds if and only if the source complies with federally enforceable regulations or limitations.**
- **B = Actual and potential emissions below all applicable major source thresholds.**
- **C = Class is unknown.**
- **ND = Major source thresholds are not defined (e.g., radionuclides).**

Appendix B

Basic American Foods
Rexburg

Tier I Operating Permit No. T1-060513

Facility ID No. 065-00008

Kipper Boiler PTC Letters

STATE OF IDAHO
DEPARTMENT OF HEALTH
AND WELFARE

DIVISION OF ENVIRONMENT
Statehouse
Boise, Idaho 83720

July 30, 1980

CERTIFIED MAIL #753039

Mr. Frank C. Haas
American Potato Company
P. O. Box 592
Blackfoot, Idaho 83221

Dear Mr. Haas:

This Department has reviewed your July 2, 1980 application for a Permit to Construct a Kipper & Sons spreader stoker boiler, fired with wood waste and up to 39% coal, rated at 60,000 lbs/hr of steam at 325psig, with emissions controlled by a Zurn type MTSA-60-9 CYT-STD-XT multiclone with 112 tubes and a Riley Model A-33-34,000 ventri-rod scrubber, with induced draft fan near Rexburg, Idaho, and is satisfied that the boiler, as proposed, is capable of complying with applicable Rules and Regulations for the Control of Air Pollution in Idaho. Therefore, this letter shall serve as your Permit to Construct the proposed boiler.

This permit is being issued subject to the following conditions:

1) Emissions of particulate matter shall not exceed the limits specified in Section 1-1301 of the Rules and Regulations for the Control of Air Pollution in Idaho.

2) Equipment shall be source tested for compliance using wood and wood/coal fuel mixtures within 60 days after startup. The Pocatello Office of the Division of Environment shall be notified when the test is to take place.

3) Sulfur content of any coal burned shall not exceed 1% by weight.

While the Department is satisfied that your boiler, as proposed, will not violate applicable air quality standards, this Permit should not be construed as a waiver of your responsibility to comply with all local, state and federal rules, regulations and standards.

Sincerely,

for Lee W. Stokes, Ph.D.
Administrator

Robert P. Cleaver

LWS/bf
cc: Henry Moran

April 30, 1981

Mr. F. C. Haas
American Potato Company
Post Office Box 592
Blackfoot, Idaho 83221

Dear Mr. Haas:

We have reviewed your April 21 request for an amendment to your July 30, 1980 Permit To Construct, and we believe your request is reasonable. Therefore condition #2 of the July 30 Permit is amended to read:

2) Within sixty (60) days after achieving the maximum production rate at which the source will be operated, but not later than one hundred eighty (180) days after initial start-up of such source, the Company shall conduct a performance test in accordance with methods and under operating conditions approved by the Department and furnish the Department a written report of the results of such performance test.

Sincerely,

Lee W. Stokes, Ph.D.
Administrator

LWS/b

cc: Henry Moran

STATE OF IDAHO

DEPARTMENT OF HEALTH
AND WELFARE

Lyle
Loren
KSH
MLG
Retyping to FCH

Routed 5-10-84

DIVISION OF ENVIRONMENT
Statehouse
Boise, Idaho 83720
334-5362

Copy to
cc ~~Lorren Gene Lyle~~
5-10-84

May 8, 1984

Mr. Frank Haas
American Potato Company
P. O. Box 592
Blackfoot, Idaho 83221

RE: Coal as fuel in the 60,000 lb/h boiler at Rexburg

Dear Mr. Haas:

This will confirm our phone conversation of May 7, 1984. The original permit was based on supply the heat-input with a 50/50 mix of coal and wood. The heat-input basis was converted to a weight-basis, which was the origin of the limit of 39% coal in the fuel, weight basis. You are allowed, therefore, to use coal up to 39% of the total weight of fuel and 50% of the heat input.

An Air Quality Bureau representative will observe the stack when you are firing an increased proportion of coal. If the opacity (darkness) of the plume is over 20%, we will require a stack test to confirm that particulate emissions are within limits.

Sincerely,

Clint Ayer

Clint Ayer
Senior Engineer
Air Quality Bureau

CA/bf
cc: COF 1.1
Source File
Robert Wilkosz, Pocatello Field Office, AQB

cc ~~AXB6 BOILER F.Te~~

EQUAL OPPORTUNITY EMPLOYER